



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,352	10/18/2000	Duane M. Pinault	55126USA3A.002	3971
32692	7590	12/07/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				NORDMEYER, PATRICIA L
ART UNIT		PAPER NUMBER		

1772  
DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/691,352	PINault ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Patricia L. Nordmeyer	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 October 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2-11,26-29,35,37 and 39-42 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 2-11,26-29,35,37 and 39-42 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Reopening of Prosecution***

1. In view of the Appeal Brief filed on October 10, 2005, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing at the bottom of the office action.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 –11, 26 – 29, 35, 37 and 39 – 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuei (USPN 5,783,303) in view of Beesley et al. (USPN 6,238,794) and George et al. (USPN 5,484,477).

Tsuei discloses an article with a plurality of ceramic granules (Column 11, lines 47 – 51 and Figure 1, #16) bonded to a polymeric film (Column 11, lines 28 – 30 and Figure 1, #11) by a radiation curable (Column 4, lines 41 – 44) aliphatic urethane acrylic copolymer (Column 4, lines 30 – 31) for use as part of anti-slip products or coatings for abrasive articles (Column 1, lines 26 – 29) having a final thickness of 0.3 mm (Column 19, lines 15 – 17). A variety of items may be added to the curable coating including pigments, dyes, ultraviolet absorbers, ultraviolet scavengers, fillers and adhesion promoters (Column 7, lines 26 – 37). In order to improve adhesion to the coatings, the film may be primed (Column 11, lines 43 – 45). The article may also be formed from a free-standing coating with a layer of adhesive to attach particles to the surface (Column 12, lines 26 – 45). A size coating, sealant, of varying thickness is placed over the particles, completely covering some of the particles, and adhesive layer to help bond the particles to the film (Column 10, lines 39 – 59). The article may be used as a floor covering (Column 9, lines 59 – 64). The product has white ceramic granules (Column 11, line 52) adhered to a film with transparent adhesive (Column 10, lines 63 – 65) that was tested for flexibility, pliability, (Column 25, lines 14 – 24) and had a tensile elongation of 112% (Column 25, lines 37 – 40). However, Tsuei fails to disclose the article being a roofing shingle or roll of roofing material with a film, wherein the integrated granule product forms the exposed surface

layer of a roofing material and wherein the integrated granule product is suitable as an exposed surface layer of a roofing material.

George et al. teach an integrated granule product made with ceramic-coated slate base granules (Column 7, lines 1 – 2) that are covered with a thin film composition (Column 7, lines 4 – 6), where the granules are being adhered to the asphalt surface of a shingle backing (substrate) by the thin film coating (Column 7, lines 7 – 8) for the purpose forming a weather-resistant, fire-resistant decorative exterior surface on a roofing shingle (Column 1, lines 20 – 27).

Beesley et al. teach disclose ceramic coated granules(Column 2, lines 60 – 62), an inorganic base substrate in granular form having a coating which includes an amount of an alkali metal binder sufficient to bind the coating to the inorganic granule (Column 8, lines 55 – 57), the article being a roofing shingle (Column 2, lines 56 – 57), wherein the integrated granule product is suitable as an exposed surface layer of a roofing material (Column 6, lines 10 – 13)and biocide containing an algaecide (Column 4, line 41) for the purpose of forming a shingle having particles that provide a greater resistance to fading (Column 2, lines 52 – 53).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the thin film coating of Tsuei on the roofing membrane of George et al. since George shows the use of a thin film on the roofing membrane. It would have also been obvious to one of ordinary skill in the art at the time the applicant's invention was

Art Unit: 1772

made to have provided the ceramic-coated particles of Beesley et al. instead of the ceramic particles of Tsuei since the particles provide a greater resistance to fading.

One of ordinary skill in the art would have recognized that the claimed integrated granule product would be pliable as determined by the flexibility test according to ASTM D-228-00 and ASTM D-882.97 and the aesthetic color of granules are not affected by the cured adhesive since Tsuei teaches a composition made with ceramic granules adhered to a service using an acrylated aliphatic urethane, which are the same parameters of the claimed invention. Therefore, one of ordinary skill in the art would readily determine the optimum flexibility and color affects depending on the end desired results in the absence of unexpected results.

*Response to Arguments*

4. Applicant's arguments, filed October 10, 2005, with respect to the rejection(s) of claim(s) 2 –11, 26 – 29, 35, 37 and 39 – 42 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references above.

In response to Applicant's argument that nothing would motivate one of ordinary skill in the art to take an element from the abrasive arts and use them a roofing shingle, Tsuei discloses that the abrasive material is used to make antislip sheet materials that are used for a variety of purposes (Column 9, lines 55 – 64), which is for the same purpose that the abrasive particles are

Art Unit: 1772

used in the roofing shingles. While Tsuei does not disclose the distinct use of the abrasive particles in roofing shingles, the material of Tsuei is being to solve the problem of slipping.

In response to Applicant's argument that George et al. fails to disclose the creation of a separate film and curing or solidifying the oil coating on the granules at all, much less to solidify them as a separate film, George et al. discloses that a silicone resin (Column 7, line 41) could be used as an adhesion agent in combination with the film of the silicon oil, which is a separate film. The silicone resin, which is used as a cured adhesive material, is a cured material. As defined by Merriam-Webster ([www.webster.com](http://www.webster.com)), a resin is "any of a large class of synthetic products that have some of the physical properties of natural resins but are different chemically and are used chiefly in plastics". A plastic is a cured material that could be used as a cured adhesive; therefore, George et al. does disclose a cured adhesive material and a film.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer  
Examiner  
Art Unit 1772

*pln*  
*pln*

*Harold Pyon*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
*1772* 12/5/05